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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,023	09/18/2003	Pierre Labelle	03119P	9120
27804	7590	11/07/2006	EXAMINER	
HOLLAND & BONZAGNI, P.C. 171 DWIGHT ROAD, SUITE 302 LONGMEADOW, MA 01106-1700			ROE, JESSEE RANDALL	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,023

Applicant(s)

LABELLE ET AL.

Examiner

Jessee Roe

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 1-33 remain for examination wherein claims 1, 7, 17, and 23 have been amended.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 23, 2006 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 7, 17 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the Applicant is claiming the magnesium-based alloy slurry or the magnesium-based alloy casting.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1742

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 and 17-28 are rejected under 35 U.S.C 102(b) as being anticipated by Pekguleryuz et al. (US 6,322,644).

In regards to claims 1-4, 7-10, 17-20 and 23-26, Pekguleryuz et al. ('644) disclose (abstract) a magnesium-based casting alloy. The table below compares the disclosed alloy composition of Pekguleryuz et al. ('644) with that of the claimed invention.

Element	From Instant Claims	Pekguleryuz ('644)	Overlapping range
From Instant Claims 1, 7, 17 and 23 (abstract)			
Sr	0.5%-3.0%	0.5%-7.0%	0.5%-3.0%
Al	3.0%-7.0%	2.0%-9.0%	3.0%-7.0%
Mg	remainder	remainder	remainder
From Instant Claims 2, 8, 18 and 24 (abstract)			
Sr	0.5%-3.0%	0.5%-7.0%	0.5%-3.0%
Al	4.5%-5.5%	2.0%-9.0%	4.5%-5.5%
Mg	remainder	remainder	remainder
From Instant Claims 3, 9, 19 and 25 (abstract)			
Sr	1.2%-2.2%	0.5%-7.0%	1.2%-2.2%
Al	3.0%-7.0%	2.0%-9.0%	3.0%-7.0%
Mg	remainder	remainder	remainder
From Instant Claims 4, 10, 20 and 26 (abstract)			
Sr	1.2%-2.2%	0.5%-7.0%	1.2%-2.2%
Al	4.5%-5.5%	2.0%-9.0%	4.5%-5.5%
Mg	remainder	remainder	remainder

In regards to claims 5-6, 11-12, 21-22, and 27-28, since the claimed composition is anticipated by Pekguleryuz et al. ('644), the claimed material properties would also have been inherent in Pekguleryuz et al. ('644). See MPEP 2112.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 16, 31, 32 and 33 are rejected under 35 U.S.C 103(a) as being unpatentable over Pekguleryuz et al. (US 6,322,644).

In regards to claims 15, 16, 31, 32 and 33, Pekguleryuz et al. ('644) disclose a magnesium-based casting alloy with a magnesium grain particle size of 10 to 200 μm (5 to 20 μm claimed for magnesium grains and 20 to 150 μm for magnesium particles) and an intermetallic (Al_4Sr is present in addition to Mg-Al-Sr) particle size of 2 to 100 μm (1 to 10 μm claimed for intermetallic particles). The Examiner takes the position that the magnesium particles and the magnesium grains encompass the same substance. The Examiner takes the position that Al_4Sr intermetallics are present in addition to Mg-Al-Sr. The Examiner notes that the disclosed magnesium particle size and the intermetallic particle size of the magnesium-based casting alloy overlaps with the composition of the claimed invention. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05.

Claims 13, 14, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pekguleryuz et al. (US 6,322,644) in view of Bronfin et al. (US Publication 2003/0086811).

Pekguleryuz et al. ('900) disclose the magnesium-based casting alloy as shown above but Pekguleryuz does not disclose formation of the magnesium-based casting alloy by using a thixotropic casting process.

Bronfin et al. teaches a thixocasting process for magnesium-based casting alloys [0012-0013]. Thixocasting magnesium-based casting alloys results in casting alloys that are more creep resistant as well as more corrosion resistant relative to casting alloys made by other methods [0013 & 0021].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the magnesium-based casting alloy, as disclosed by Pekguleryuz et al., by a thixocasting process, as disclosed by Bronfin et al., in order to produce casting alloys that are more creep resistant as well as more corrosion resistant relative to casting alloys made by other methods, as disclosed by Bronfin et al. [0013 & 0021].

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bronfin et al (US 2003/0086811 in view of Norville et al. (US 6,845,809).

Claims 1-32 are rejected on the same grounds as stated in the Office Action of October 26, 2005.

In regards to the changes of claims 1, 7, 17 and 23 wherein the word "comprising" has been replaced by "consisting essentially of", "comprising" is construed as being equivalent to "consisting essential of". The Applicant has the burden of showing that the introduction of additional components would materially change the characteristics of Applicant's invention. See MPEP 2111.03.

Claim 33 is rejected on the same grounds as stated in the Office Action of April 25, 2006.

Response to Arguments

Applicant's arguments filed August 23, 2006 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claim 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR


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